

Focus on Food Safety

Two-Stage Cooling

Cooked, potentially hazardous foods need to move quickly through the temperature danger zone to limit growth of micro-organisms, resulting in foodborne illness. A two-stage cooling process is required:



- 1. From 140°F to 70°F within two hours; and
- 2. From 70°F to 41°F within four hours

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Within four hours if food is prepared using ingredients normally stored at room temperature

Many foods require manipulation to cool quickly. Possible methods include:

- Placing food in shallow pans
- Separating food into smaller or thinner portions (2 inch depth for thick foods/4" depth for thin liquids)
- Cutting large pieces of meat into pieces no larger than 4 inches or 4 pounds
- Stirring the food as it cools
- Using an ice paddle or other equipment to stir the food
- Adding ice directly to the product as an ingredient
- Using rapid chill refrigeration equipment
- Placing food in containers that encourage quick cooling, or
- Placing food in an ice bath

To cool in an ice bath, follow these steps:

- 1. Prepare an ice bath in a clean sink. Fill the sink with ice. Add cold water to fill in the spaces
- 2. Remove food from heat source. Insert the container into the ice bath so the food is level with the ice
- 3. Stir the food every 10-15 minutes
- 4. Drain water and replenish ice as it melts
- 5. Use a clean thermometer to monitor the temperature of the food
- 6. After the food has cooled to 41°F, refrigerate or freeze.



A safe eating fact sheet brought to you by the KDHE Bureau of Consumer Health, 1000 SW Jackson, Suite 200, Topeka, KS 66612-1274.

